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IS 4629: 1994 (Amalgamating IS 3783: 1966)

भारतीय मानक

वस्त्रादि - खादी के ऊनी कम्बल - विशिष्टि

(पहला पुनरीक्षण)

Indian Standard

TEXTILES — BLANKETS, WOOL KHADI — SPECIFICATION

(First Revision)

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Handloom and Khadi Sectional Committee had been approved by the Textile Division Council.

This standard was first published in 1968. This standard has been revised to overcome difficulties encountered by the khadi industry in implementation of the standard.

Following are the important changes carried out while revising this standard:

- a) Keeping in view the similarity in the end use, the requirements of blankets, superior, brick red, wool khadi have also been covered as variety No. 1 in this standard. Hence IS 3783: 1966 'Specification for blankets, superior, brick red, wool khadi' stands withdrawn.
- b) Tolerances on length and width as notified by the Government of India under Trade and Merchandise Marks Act, 1958 (43 of 1958) have been adopted.
- c) For checking the conformity of the blankets to the requirements laid down in the standard, a provision has been made for testing of samples in prevailing atmospheric conditions. However, in case of dispute, the samples shall be tested after conditioning in the standard atmospheric conditions.
- d) The standard provides for agreement between the buyer and the seller with respect to permissible number of defects in the blankets.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2: 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEXTILES — BLANKETS, WOOL KHADI — SPECIFICATION

(First Revision)

1 SCOPE

- 1.1 This standard prescribes constructional particulars and other requirements for five varieties of blankets, wool khadi, plain dyed or check.
- 1.2 This standard does not specify the general appearance, feel, linish, shade, etc, of the blankets.

2 REFERENCES

The Indian Standards listed at Annex A are necessary adjuncts to this standard.

3 ATMOSPHERIC CONDITIONS FOR TESTING

Test specimens may be conditioned and tested in the prevailing atmospheric conditions for determining the conformity of blankets to the standard. However, in case of dispute, the specimens shall be conditioned and tested in the standard atmosphere as specified in the referred Indian Standards on test methods.

4 MANUFACTURE

4.1 Yarn

The woollen yarn used in the manufacture of blankets shall be hand spun from suitable quality of wool and free from admixture of non-wool fibres. The approximate count of the warp and west yarn is given in Table 1.

NOTE — For production of blankets, superior, brick-red, wool khadi conforming to variety No. 1 meant for Defence supply 56s/60s quality wool may be used.

4.2 Blankets

- **4.2.1** The blankets shall be woven in 2/2 twill weave.
- **4.2.2** The blankets shall be either plain dyed or in check pattern as agreed to between the buyer and the seller.
- 4.2.3 The blankets shall be milled and raised.
- **4.2.4** The finished blankets shall be free from grease, soap or any other admixture which may give fictitious weight or firmness.
- **4.2.5** If required by the buyer, the blankets-shall be mothproofed (see 1S 11662 : 1986)

4.2.6 The transverse ends of blankets shall have either piping with 6 mm turn-in or cut down and whipped or finished with a fringe as agreed to between the buyer and the seller.

5 REQUIREMENTS

- **5.1** The constructional particulars of the blankets shall conform to the requirements specified in Table 1.
- **5.2** The blankets shall also conform to the other requirements specified in Table 2.

5.3 Dimensions

Length and width of the blankets when determined in accordance with IS 1954: 1990 shall be as agreed to between the buyer and the seller or as declared by the seller subject to the tolerances notified in the Government of India, Ministry of Commerce and Industry Notification No. S.O. 2937 dated 20 September 1962 issued under *Trade and Merchandise Marks Act*, 1958 (43 of 1958) (see Annex D).

NOTE — Generally the size of the blankets is as follows:

Plain dyed	250 × 150 cm
Check	240 × 135 cm
Superior, brick-red	230 × 152 cm

5.4 Freedom from Defects

- **5.4.1** The blankets when visually inspected shall be free from the major flaws listed at Annex E. However, the number of permissible flaws per piece may be as agreed to between the buyer and the seller.
- **5.4.2** For details of the flaws mentioned in **5.4.1**, a reference may be made to IS 4125 : 1987.

5.5 Sealed Sample

- **5.5.1** In order to illustrate or specify the indeterminable characteristics, such as general appearance, feel, shade, etc, if a sample has been agreed upon and sealed, the supply shall also be in conformity with the sample in such respects.
- **5.5.2** The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller

Table 1 Constructional Particulars of Blankets, Wool Khadi

(Clauses 4.1 and 5.1)

Variety No.	Count of Yarn (for Guidance Only) Universal Count (Woollen Count ¹)		Ends/dm	Picks/dm	Mass g/m²
(1)	Warp (2)	Weft (3)	(4)	(5)	(6)
1	$125 \text{ tex} \times 2$ $(16\text{s}/2)$	125 tex (16s)	95	80 Double	560
2	$250 \text{ tex} \times 2$ $(8s/2)$	250 tex (8s)	48	40 Double	500
3	$250 \text{ tex} \times 2$ $(8s/2)$	330 tex (6s)	55	40 Double	610
4	$200 \text{ tex} \times 2$ $(10\text{s}/2)$	250 tex (8s)	65	50 Double	610
5	$200 \text{ tex} \times 2$ $(10\text{s}/2)$	200 tex (10s)	75	55 Double	560
Toler-, ance, percent	-	_	±5	±5	±5
Method of Test	_		IS 1963 : 1981	IS 1963 : 1981	IS 1964: 1970 or Annex B

NOTE — Any increase in values of ends/dm, picks/dm or mass (g/m²) beyond positive tolerance shall not be a cause of rejection of the blankets.

Table 2 Other Requirements for Blankets, Wool Khadi

(Clause 5.2)

	Characteristics (1)	Requirement (2)	Method of Test (3)
i)	Dimensional changes percent. Max	2	IS 665 : 1989
ii)	pH value of the aqueous extract	5.0 to 7.5	IS 1390 : 1983 (Cold method)
iii)	Colour fastness:		
	a) Light	5 or better	IS 686 : 1985 or .IS 2454 : 1985
	b) Washing: Test 1 1) Change in colour 2) Staining on fabric	3 or better 3 or better	IS 687 : 1979
	c) Organic solvent1) Change in colour2) Staining on fabric	3 or better 3 or better	IS 688 : 1988
	d) Rubbing 1) Change in colour 2) Staining on fabric	3 or better 3 or better	IS 766 : 1988
	e) Perspiration 1) Change in colour 2) Staining on fabric	3 or better 3 or better	IS 971 : 1983
iv)	Scouring loss, percent, Max	4	Annex C

¹⁾ Yorkshire

6 MARKING

- **6.1** The blankets shall be suitably marked with the following information:
 - a) Name of the material and variety number,
 - b) Length (cm) and width (cm), and
 - c) Indication of the source of manufacture.

6.2 BIS Certification Marking

The blankets may also be marked with the Standard Mark.

6.2.1 The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7 PACKING

Unless otherwise agreed upon by the buyer and the seller, the blankets shall preferably be packed in bales or cases in conformity with the procedure laid down in IS 32: 1971 or IS 741: 1971.

8 SAMPLING

8.1 Lot

The number of blankets delivered to one buyer against one despatch note shall constitute a lot.

- **8.2** The conformity of the lot to the various requirements specified in the standard shall be determined on the basis of tests carried out on the samples selected from the lot.
- **8.3** Unless otherwise agreed, the number of pieces selected at random for inspection shall be in accordance with Table 3.
- **8.3.1** For selection of samples at random from the lot, procedure given in IS 4905: 1968 may be followed.

Table 3 Sample Size (Clause 8.3)

Lot Size	Sample Size	Sub-sample Size
(1)	(2)	(3)
Up to 25	3	2
26 to 50	5	2
1 and above	8	3

8.4 Number of Samples and Criteria for Conformity It shall be as follows:

Characteristics	Number of Samples	Criteria for Conformity
Ends, picks, mass, length, width and freedom from defects	According to col 2 of Table 3	All the test pieces shall meet the specified requirements
Dimensional changes scouring loss, pH value, colour fastness	According to col 3 of Table 3	All the test pieces shall meet the specified requirements

ANNEX A

(Clause 2)

LIST OF REFERRED INDIAN STANDARDS

IS No.	Title	IS No.	Title
32: 1971	Code for seaworthy packaging of woollen and worsted yarn and cloth (second revision)	971: 1983	Methods for determination of colour fastness of textile materials to perspiration (first revision)
665: 1989	Textiles — Determination of dimensional changes of fabrics containing wool on soaking in water	1390 : 1983	Methods for determination of pH value of aqueous extracts of textile materials (first revision)
686 : 1985	(first revision) Methods for determination of colour	1954 : 1990	Methods for determination of length and width of woven fabrics — (second revision)
687 : 1979	fastness of textile materials to daylight (first revision) Methods for determination of colour	1963: 1981	Methods for determination of threads per unit length in woven fabrics (second revision)
007.1979	fastness of textile materials to washing: Test 1 (second revision)	1964 : 1970	Methods for determination of weight per square metre and weight per linear metre of fabrics (first revision)
688 : 1988	Methods for determination of colour fastness of textile materials to organic solvents (first revision)	2454 : 1985	Methods for determination of colour fastness of textile materials to artificial light (Xenon lamp) (first
741 : 1971	Code for inland packaging of		revision)
	woollen and worsted yarn and cloth (first revision)	4125 : 1987	Glossary of terms pertaining to defects in fabrics
766: 1988	Methods for determination of colour	4905 : 1968	Method for random sampling
	fastness of textile materials to rubbing (first revision)	11662: 1986	Preservative treatments of textiles

ANNEX B

(*Table* 1)

METHOD FOR DETERMINATION OF MASS OF BLANKETS

B-1 Cut four specimens of 100 mm \times 100 mm from a sample. Condition all the specimens in the desiccator charged with saturated solution of sodium nitrate at 27 \pm 2°C for a period of 24 hours. Remove all the

specimens from the desiccator and immediately determine their collective mass in weighing balance to the nearest milligram.

B-2 Calculate mass of blankets in g/m².

ANNEX C

(Table 2)

METHOD FOR DETERMINING SCOURING LOSS

C-1 TEST SPECIMEN

Take about 10 g of yarn from each sample. This shall constitute a test specimen.

C-2 PROCEDURE

Dry the test specimen to constant mass in the drying oven at $105 \pm 3^{\circ}$ C temperature and determine its mass accurately.

NOTE — Constant mass shall be deemed to have been reached if the difference between the two successive weighings at an interval of 20 minutes is less than 0.05 percent.

C-3 Extract the specimen with a mixture of benzene and methyl alcohol in the proportion of 3 : 2 in a Soxhlet apparatus for 4 hours at the rate of 5 extractions

per hour, taking care to place the specimen in a thimble and covering it with cotton wool previously extracted with petroleum hydrocarbon solvent (Petroleum ether). Remove the specimen from the extract. Dry the residue to a constant mass (see Note under C-2) at $105 \pm 3^{\circ}$ C and determine the mass accurately.

C-4 CALCULATION

Calculate the scouring loss by the following formula:

Scouring loss, percent =
$$\frac{a}{b} \times 100$$

where

a = mass of the dry residue (see C-3), and

b = mass of the test specimen (see C-2).

ANNEX D

(Clause 5.3)

EXTRACTS FROM THE GOVERNMENT OF INDIA, MINISTRY OF COMMERCE AND INDUSTRY (TRADE AND MERCHANDISE MARKS) NOTIFICATION NO. S.O. 2937, DATED 20 SEPTEMBER 1962

- **D-1** A trade description of length and width on woollen (including shoddy) and worsted fabricated items like blankets, shawls, scarves or other articles of a similar kind:
 - i) the actual length of the piece shall not be less than stamped length by more than 1 percent.
 - ii) the permissible limits of variation in respect of trade description of width shall be as those prescribed for width of woollen and worsted price goods (see D-2).

- **D-2** A trade description of width stamped on worsted, woollen and shoddy piece goods:
 - i) in pieces of worsted fabric the stamped width shall not be greater or less than the actual width provided that the variation in width at any point is not more than 2 percent and on average not more than 1.5 percent.
 - ii) in pieces of woollen and shoddy piece goods, the stamped width shall not be greater or less than the actual width, provided that the variation in width at any point is not more than 3 percent and on average not more than 2 percent.

ANNEX E

(*Clause* 5.4.1)

LIST OF MAJOR FLAWS

- More than one adjacent end missing in the body of the material running throughout the piece or more than three ends missing at a place and running over 25 cm or prominently noticeable double end running throughout the piece.
- 2) Undressed snarls noticeable over a length exceeding 5 percent of the length of the piece.
- 3) Smash definitely rupturing the texture of the fabric.
- 4) Hole, cut or tear other than pin holes.
- 5) Cockled finish causing defective appearance in texture of fabric.
- 6) Prominent mill rigs such as felted folds and crease produced during milling.
- 7) Prominent water marks all over the cloth.
- 8) West crack of two or more missing picks across the width of the fabric.
- Weft bar due to the difference in raw material, count, twist, lustre, colour, shade or pick spacing of adjacent groups of weft yarns (starting mark).
- More than two adjacent ends running parallel, broken or missing and extending beyond 10 cm.

- 11) Noticeable warp or west float in the body of the fabric.
- 12) Noticeable oil or other stain in the fabric.
- 13) Oily west in the fabric.
- 14) Prominently noticeable slub or slubby weft or foreign matter such as blur, twigs, leaves, straw, etc.
- 15) Conspicuous broken pattern.
- 16) Prominently visible knot of warp or west yarn tied into having hard projection.
- 17) Prominent selvedge defect.
- 18) Significant shading or listing in fabrics having a gradual change in tone or depth of shade of fabric (excluding selvedge or border running parallel to the selvedge).
- 19) Prominently noticeable dycing defects such as patchy, streaky or uneven dycing.
- 20) Milling and scouring defects such as excess or deficiency of cover due to difference in milling, scouring or raising.
- 21) Pilling or defective raising.

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